PADUCAH
Remediation Services
A Portage Shaw Joint Venture Company

761 Veterans Ave.
Kevil, KY 42053

April 17, 2008

ENM-L-0697

Mr. Reinhard Knerr, Paducah Site Lead
Portsmouth/Paducah Project Office
U.S. Department of Energy
P.O. Box 1410
Paducah, Kentucky 42002-1410

Dear Mr. Knerr:

DE-AC30-06EW05001 – DELIVERABLE NO. 143 – SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN

Under cover of this letter, Paducah Remediation Services, LLC, is providing the Spill Prevention, Control, and Countermeasure (SPCC) Plan to the Paducah Site Office. This report is required in accordance with federal oil pollution prevention regulations (40 *CFR* Part 112), as well as contract Deliverable No. 143. U.S. Department of Energy (DOE) comments have been incorporated into this document. A comment response summary table is enclosed. This document is not required to be submitted to regulatory agencies.

The purpose of this SPCC Plan is to form a comprehensive spill prevention program that minimizes the potential for discharges. This SPCC Plan guides DOE personnel and DOE contractor personnel on the proper steps to take to avoid and respond to discharges of oil and oil products into the environment from containers of such products associated with DOE projects and activities. This SPCC Plan has been prepared for DOE-related projects and activities at the DOE Paducah Site. This SPCC Plan does **not** address USEC projects and activities including DOE-owned facilities and equipment operated by USEC; Uranium Disposition Services, LLC, projects and activities; or Swift and Staley Mechanical Contractors, Inc., projects and activities.

If you require additional information, please contact Tracey Duncan at (270) 441-5167.

Sincerely,

Russell Boyd, P.E., Site Manager
Paducah Remediation Services, LLC

RB:TLD:dd

In accordance with the requirements of Contract DE-AC30-06EW05001 and as acknowledged by the above signature, I hereby certify that the information provided in this transmittal has been prepared in accordance with all applicable requirements and the information is, to the best of my knowledge and belief, true, accurate, and complete.

Enclosures:
1. Comment Response Summary
2. 2008 SPCC Plan

cc:
P. Coutts, PRS/Kevil
File-DCC/DMC-RC
M. Gerle

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(REDACTED)
PRS/ENM/0037

Spill Prevention, Control, and Countermeasure Plan for the DOE Paducah Site, McCracken County, Kentucky

The Official Use Only (OUO) Information has been redacted from this document per DOE request on 6-16-08.

OFFICIAL USE ONLY

May be exempt from public release under the Freedom of Information Act (5 U.S.C. 552) exemption number and category:

#2 Circumvention of Statute.

U.S. Department of Energy review required before public release.

Name/Org M.R. Brenneman Seminole Sys Date 8-11-08

Guidance (if applicable)

(REDACTED)
PRS/ENM/0037

Spill Prevention, Control, and Countermeasure Plan for the DOE Paducah Site, McCracken County, Kentucky

Date Issued—April 2008

Prepared for the
U.S. DEPARTMENT OF ENERGY
Office of Environmental Management

Prepared by
PADUCAH REMEDIATION SERVICES, LLC
managing the
Environmental Management activities at the
Paducah Gaseous Diffusion Plant
under contract DE-AC30-06EW05001

PROFESSIONAL ENGINEER'S CERTIFICATION [40 *CFR* §112.3(d)]

By means of this certification I attest that I am familiar with the requirements of this part; that I or my agent has visited and examined the facility; that this Spill Prevention, Control, and Countermeasure Plan has been prepared in accordance with good engineering practice, including consideration of applicable industry standards and with the requirements of 40 *CFR* §112; that procedures or work practices for required inspections and testing have been established; and that this plan has been fully implemented. The plan and individual(s) responsible for implementing the plan have full approval of management, and the facility owner or operator has committed the necessary resources to fully implement the plan.

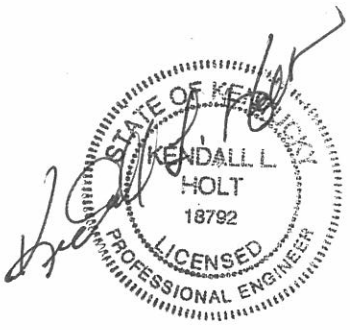
KENDALL L. HOLT

Name

04-10-08

Date

SEAL



04-10-08

MANAGEMENT APPROVAL (40 *CFR* §112.7)

This Spill Prevention, Control, and Countermeasure (SPCC) Plan was prepared in accordance with good engineering practices and has the full approval of site management. Implementation of this plan minimizes the potential for discharges of oil and oil-related products at the U.S. Department of Energy Paducah Site located in McCracken County, Kentucky. Management will make available personnel, equipment, and materials necessary to implement this SPCC Plan and control and mitigate any discharges that do occur. The priorities of response team members are based upon protection of human life, prevention of environmental harm, and protection of property, respectively.

This SPCC Plan will be reviewed and evaluated at least once every five years. This review will be documented in the SPCC Plan Management Review Record located on the following page of this SPCC Plan and will include a statement as to whether the SPCC Plan will be amended. Any technical amendments to the SPCC Plan will be certified by a professional engineer.

Paducah Site management is fully committed to the proper implementation of this SPCC Plan.

Signature

4/28/08
Date Signed

Reinhard Knerr/DOE
Printed Name

Paducah Site Lead
Title

Signature

4/17/2008
Date Signed

Russell Boyd/PRS
Printed Name

SITE MANAGER
Title

SPCC PLAN MANAGEMENT REVIEW RECORD

I have completed review and evaluation of the SPCC Plan for the DOE Paducah Site and ___will ___will not amend the SPCC Plan within six months of the date of my review.

Signature	Date Signed
Printed Name	Title

I have completed review and evaluation of the SPCC Plan for the DOE Paducah Site and ___will ___will not amend the SPCC Plan within six months of the date of my review.

Signature	Date Signed
Printed Name	Title

CONTENTS

ACRONYMS

CFR	*Code of Federal Regulations*
DMSA	DOE Material Storage Areas
DOE	U.S. Department of Energy
EPA	U.S. Environmental Protection Agency
IC	incident commander
KDEP	Kentucky Department for Environmental Protection
KPDES	Kentucky Pollutant Discharge Elimination System
PA	public address system
PGDP	Paducah Gaseous Diffusion Plant
PRS	Paducah Remediation Services, LLC
PSS	plant shift superintendent
RCRA	Resource Conservation and Recovery Act
RQ	reportable quantity
SOP	standard operating procedure
SPCC	Spill Prevention, Control, and Countermeasure
SPCCC	Spill Prevention, Control, Countermeasure, and Contingency
TSCA	Toxic Substances Control Act
UL®	Underwriters Laboratories Inc.®
UDS	Uranium Disposition Services, LLC
USEC	United States Enrichment Corporation

ABSTRACT

This Spill Prevention, Control, and Countermeasure (SPCC) Plan for the U.S. Department of Energy (DOE) Paducah Site is written to comply with federal oil pollution prevention regulations (40 *CFR* Part 112). The purpose of this SPCC Plan is to form a comprehensive spill prevention program that minimizes the potential for discharges. This SPCC Plan guides DOE personnel and DOE contractor and subcontractor personnel on the proper steps to take to avoid and respond to discharges of oil and oil products into the environment from containers of such products associated with DOE projects and activities. This SPCC Plan will be reviewed and evaluated at least once every five years. This SPCC Plan will be revised when there is a change in facility design, construction, operation, or maintenance that materially affects the potential for a discharge of oil into or upon the navigable waters of the United States or if the SPCC Plan fails in an emergency. Any technical revisions to the SPCC Plan must be reviewed and certified by a professional engineer.

The Paducah Site is owned by DOE and DOE leases the main operational facilities of the Paducah Gaseous Diffusion Plant to the United States Enrichment Corporation (USEC). DOE has contracted with USEC to provide emergency response including discharges of oil and oil products. USEC provides emergency response personnel, spill equipment, communication systems, and external agency coordination.

1. INTRODUCTION

Federal and state regulations prohibit the unauthorized discharge of oil and oil products (e.g., gasoline, diesel fuel, hydraulic oil, waste oil). It is the policy of the U.S. Department of Energy (DOE) and its contractor, Paducah Remediation Services, LLC, (PRS), to require all oil and oil products to be handled in a manner that prevents discharges and protects persons and the environment from harm. The purpose of this Spill Prevention, Control, and Countermeasure (SPCC) Plan is to form a comprehensive spill prevention program that minimizes the potential for discharges. This SPCC Plan guides DOE, PRS, and Paducah Site subcontractor personnel on the proper steps to take to avoid and respond to discharges of oil and oil products into the environment from containers of such products associated with DOE projects and activities. Copies of this SPCC Plan will be kept at the DOE Paducah Site Office and other locations, as appropriate.

The Paducah Site is owned by DOE, and DOE leases the main operational facilities of the Paducah Gaseous Diffusion Plant (PGDP) to the United States Energy Corporation (USEC). This SPCC Plan has been prepared for DOE remediation-related projects and activities at the DOE Paducah Site. This SPCC Plan does **not** address USEC or Uranium Disposition Services, LLC (UDS) projects and activities, including DOE-owned facilities and equipment operated by USEC or UDS. USEC and UDS have their own Spill Prevention, Control, Countermeasure, and Contingency (SPCCC) Plans that address applicable requirements (USEC 2005). DOE, however, has contracted with USEC to provide response to all discharges of oil and oil-related products. USEC provides emergency response personnel, spill cleanup equipment, communication systems, and external agency coordination as described in Section 5.

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2. REGULATORY BACKGROUND

2.1 GENERAL REQUIREMENTS

The U.S. Environmental Protection Agency (EPA) promulgated Oil Pollution Prevention regulations cited at 40 *CFR* Part 112. These regulations establish requirements to prevent the discharge of oil and oil products into navigable waters of the United States. These regulations are applicable to facilities that have oil and oil products and that reasonably could be expected to discharge oil into navigable waters of the United States, and that:

- Have an aggregate aboveground capacity of more than 1,320 gal (counting only containers of 55 gal or greater) or

- Have an aggregate underground capacity of more than 42,000 gal [excluding tanks subject to underground storage tank regulations (40 *CFR* Parts 280–281) and permanently closed tanks].

The regulations cited at 40 *CFR* Part 112 do not apply to any container with a storage capacity of less than 55 gal of oil or oil products. Although the regulations do not specifically define "container," they do define "bulk storage container" as "any container used to store oil" except for "oil-filled electrical, operating, or manufacturing equipment." This means that oil-filled electrical, operating, or manufacturing equipment containing 55 gal or greater of oil or oil products is subject to these regulations but not to the specific requirements for bulk storage containers.

2.2 REQUIREMENTS FOR SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLANS

The main requirement of 40 *CFR* Part 112 is to require regulated facilities to prepare and implement a SPCC Plan. The purpose of a SPCC Plan is to form a comprehensive spill prevention program that minimizes the potential for discharges. The SPCC Plan must address all relevant spill prevention, control, and countermeasures necessary at the specific facility. Copies of the SPCC Plan must be kept at the DOE Paducah Site Office along with the names of person(s) responsible for each regulated container/equipment containing oil or oil products.

This SPCC Plan must be reviewed and evaluated at least once every five years. Documentation of the review should be provided on the SPCC Plan Management Review Record, located near the front of this SPCC Plan. This SPCC Plan must be revised, within six months, when there is a change in facility design, construction, operation, or maintenance that materially affects the potential for a discharge of oil into or upon the navigable waters of the United States or if the SPCC Plan fails in an emergency. Any technical revisions, as defined in 40 *CFR* Part 112.5 to the SPCC Plan, must be reviewed and certified by a professional engineer.

The Paducah Site also stores many containers, oil-filled electrical equipment, and other items containing oil or oil products with capacities of 55 gal or greater that are regulated under the Resource Conservation and Recovery Act (RCRA) or the Toxic Substances Control Act (TSCA). RCRA and TSCA impose strict storage requirements on regulated items. Any item stored in an area that meets RCRA or TSCA requirements is considered to meet all SPCC requirements necessary to prevent discharges and is not further addressed in this SPCC Plan. Addressing such items in this SPCC Plan would be redundant and could result in conflicting or confusing requirements.

The Paducah Site also has many DOE Material Storage Areas (DMSAs) on-site with items that may contain oil or oil products. A plan to characterize and cleanup the DMSAs was negotiated between DOE and the Kentucky Department for Environmental Protection (KDEP). This effort will take many months to complete. As characterization efforts lead to the identification of oil-containing items, the items and/or their contents will be removed properly and managed appropriately. DMSA items are not addressed further in this SPCC Plan.

2.3 FACILITY RESPONSE PLAN

A facility response plan is not required because the Paducah Site does not meet the substantial harm criteria of 40 *CFR* Part 112, Appendix C. A form for Certification of the Applicability of the Substantial Harm Criteria has been completed and is included in this SPCC Plan (Appendix A).

3. DESCRIPTION OF SITE AND ENVIRONS

3.1 PADUCAH SITE GENERAL DESCRIPTION

The Paducah Site consists of approximately 3,556 acres located in a generally rural area of McCracken County, Kentucky, about 10 miles west of Paducah, Kentucky, and 3 miles south of the Ohio River. The industrial portion of PGDP is situated within a fenced security area at the Paducah Site and makes up about 757 acres. The fenced security area is designated as secured industrial land use and consists of numerous active and inactive production buildings, offices, equipment and material storage units, active and inactive waste management units, and other support facilities. The remaining 2,675 acres of DOE-owned land at the Paducah Site is comprised of approximately 680 acres of "buffer zone" designated as unsecured industrial land use and 1,986 acres licensed to the Commonwealth of Kentucky as part of the 6,823-acre West Kentucky Wildlife Management Area. DOE also has acquired approximately 133 acres in easements. There are no residences at the Paducah Site.

Three small communities are located within 3 miles of PGDP: Heath and Grahamville to the east and Kevil to the southwest. The closest commercial airport is Barkley Regional Airport, approximately 5 miles to the southeast. The population within a 50-mile radius of PGDP is approximately 500,000, of which 66,000 are located within a 10-mile radius.

3.2 SITE DRAINAGE CHARACTERISTICS

Surface runoff drains from the site to two small tributaries of the Ohio River. Bayou Creek on the west (also referred to as Big Bayou Creek) and Little Bayou Creek on the east. These two streams join north of the site and discharge into the Ohio River. The approximate average flow in Bayou Creek below permitted plant effluent discharges is 3 million gal per day (MGD) and in Little Bayou Creek below permitted plant effluent discharges is 0.5 MGD. Natural runoff makes up a small portion of the flow during dry periods.

These creeks are not used as drinking water supplies but are accessible to wildlife and recreationists. Both creeks are classified by the Commonwealth of Kentucky as being for "all uses" and, therefore, are subject to warm water aquatic habitat criteria standards in the creeks and drinking water standards at the nearest drinking water withdrawal location (Cairo, Illinois).

In general, plant drainage is divided into east and west systems with some overlap (see Figure B-1 in Appendix B). Liquid discharges (including potentially released oil and oil products) would be expected to flow to the major drainage ditches and potentially to Bayou Creek or Little Bayou Creek. The flow rate would vary according to the size and location of the discharge and the weather conditions at the time.

3.3 LOCATIONS OF OIL AND OIL PRODUCTS

Tanks, containers, and equipment containing oil and oil products and having capacities of 55 gal or greater are listed in Table B-1 and shown in Figure B-1. Up to 50 55-gal drums of kerosene are stored at any one time inside a structure at C-746-H3 and 10 drums at C-733. Two stationary 500-gal tanks used to store gasoline and diesel fuel for vehicles and forklifts are located outside C-746-A. A 1,000-gal stationary tank used to store diesel fuel for heavy equipment and a 500-gal stationary tank that stores gasoline for vehicles are located outside C-746-U. These items are described further in Section 4.

There are also other tanks and equipment on-site that typically contain 55 gal or more of oil products. These items include mobile equipment/vehicles and temporarily located equipment (e.g., generators). In addition, fuel tanker trucks periodically come on-site to refill on-site tanks and equipment. These mobile and temporary items are addressed in this SPCC Plan but are not included in Figure B-1 because they range over a wide on-site area or are not at one location for very long.

3.4 SPILL PREDICTION

Although unlikely, the potential exists for discharges of the oil or oil products discussed above to enter Bayou Creek or Little Bayou Creek via PGDP outfall drainage ditches. Table B-1 indicates the most likely drainage ditch that such discharges would enter. Flow rates of a discharge would vary according to the size and location of the discharge and the weather conditions at the time.

3.5 NEW OIL-CONTAINING ITEMS

Project/activity managers are required to complete a form (Appendix C) for any new containers or equipment to be brought on-site that would contain oil or oil products and have a capacity of 55 gal or greater. The form is to be submitted to PRS Environmental Compliance. The responsible person(s) will be made aware of his/her responsibilities under this SPCC Plan and will comply with the requirements spelled out herein.

4. SPILL PREVENTION AND CONTROL

4.1 ADMINISTRATIVE CONTROLS

4.1.1 Management Support

Paducah Site management strongly supports the prevention of discharges of oil and oil products. It is impressed upon all Paducah Site personnel that pollution prevention is an integral part of job performance and that Paducah Site personnel are responsible for reporting and, where appropriate, correcting conditions that could lead to a discharge. All Paducah Site personnel are expected to follow applicable procedures and perform their jobs in such a manner as to prevent discharges. Discharge prevention is also a key element of Paducah Site quality assurance assessments.

4.1.2 Compliance Assistance

Environmental compliance specialists are available to provide technical assistance to operating groups responsible for Paducah Site projects and activities. They also assist in developing training programs for employees related to discharge/spill prevention and response.

4.1.3 Procedures

Operating groups that store, use, transfer, or otherwise handle oil and oil products must develop and implement appropriate standard operating procedures (SOPs). SOPs must address the proper handling of oil and oil products. In particular, SOPs must be developed and implemented for the transfer of oil and oil products to or from containers/equipment with a capacity of 55 gal or more (e.g., filling of bulk storage tanks, refueling of vehicles). SOPs addressing refueling of vehicles and equipment require spill control materials be kept on hand. SOPs also need to address appropriate inspection methods and schedules.

4.1.4 Inspections

All items with a capacity of 55 gal or more of oil or oil products must be inspected on a regular basis. The methods and frequency of inspections must be appropriate for the item. Each inspection report must be signed by the qualified employee performing the inspection.

Visible leaks, evidence of past leaks, faulty equipment, or any situation with the potential to cause a discharge must be reported to the manager of that facility or operating group manager and Environmental Compliance, and be promptly addressed. In the event of a discharge of oil or oil products where the discharge has the potential to migrate from the area or otherwise cause harm to the environment, the USEC plant shift superintendent (PSS) will be contacted immediately (see Section 5.1).

4.1.4.1 Stationary Tanks and Containers

The 1,000-gal and 500-gal ConVault® tanks located at C-746-U are provided with secondary containment, as described in Section 4.2.1.1. Each system has a through tank leak detector tube to allow for physical checkup and monitoring capability between the primary and the secondary containment. Inspections are conducted and documented at least monthly.

The two 500-gal tanks located at C-746-A are double-lined tanks, meeting the specifications for secondary containment. Each tank is equipped with a leak detection device that is monitored at least monthly.

4.1.4.2 Portable Tanks and 55-Gal Drums

The 55-gal drums of kerosene stored at C746-H3 are inspected at least monthly. Portable tanks, such as the transfer tank secured in the bed of truck #09571, are inspected each time they are used.

4.1.4.3 Mobile or Temporary Equipment

Mobile or temporary equipment, such as trackhoes or generators, are inspected each time they are refueled. Heavy duty equipment, such as loaders and cranes, should be inspected for leaks during use.

4.1.5 Spill Control Materials

Appropriate spill control materials are at or near all non-mobile items containing 55 gal or more of oil or oil products. In the case of mobile items, spill control materials are near the refueling and maintenance locations.

4.1.6 Training

Paducah Site personnel handling oil and oil products or who assist in the transfer of such products to or from bulk storage containers must be trained appropriately. In addition, a responsible person must be designated for each tank, container, and equipment item containing oil or oil products and having capacities of 55 gal or greater, and these persons must be trained. At a minimum, training must consist of proper operation and maintenance of equipment to prevent discharges, discharge procedure protocols, applicable regulations and SOPs, descriptions of recent known discharges, and the contents of this SPCC Plan. Trained personnel are to receive refresher briefings at least once per calendar year.

4.1.7 Security

Tanks, containers, and equipment containing oil and oil products and having capacities of 55 gal or greater must be located within the PGDP security fence or in fully fenced or locked areas with controlled access. Also, associated valves and pumps must be secured and locked in “closed” or “off” positions when they are not operational or on standby status. In addition, adequate lighting is provided for stationary equipment to allow for the discovery of discharges during hours of darkness and for the prevention of discharges occurring through acts of vandalism.

4.2 ENGINEERED CONTROLS

4.2.1 Secondary Containment

4.2.1.1 Stationary Tanks and Containers

The 1,000-gal and 500-gal tanks located outside at C-746-U are manufactured by ConVault® and are Underwriters Laboratories Inc.® (UL) listed. Each system consists of a primary steel tank and secondary containment consisting of a 30-mil (0.78-millimeters) thick polyethylene membrane enclosing the steel tank and insulation material. The primary steel tank and the secondary containment are encased in 6 inches of reinforced concrete, but no steel or insulating material comes in contact with the concrete.

The two 500-gal steel tanks located outside C-746-A are double-lined tanks meeting the specifications for secondary containment.

4.2.1.2 Portable Tanks and 55-Gal Drums

The 55-gal drums of kerosene are stored in an area of C-746-H3 are provided with secondary containment. The floor and dikes in this area are covered with an impervious rubberized material called Palco™. The 55-gal drums of kerosene that are stored at C-733 also are provided with secondary containment and a floor sump that is inspected after each rain event where oils could wash into the sump. The facility has a roof and secondary containment but no walls to prevent build up of explosive gas if a leak were to occur.

Portable tanks usually are not provided with secondary containment because it is not practical or considered necessary. These items are designed and maintained to minimize discharges, and they are inspected regularly. Other controls are in place, as discussed in this SPCC Plan, to prevent discharges.

4.2.1.3 Mobile or Temporary Equipment

Mobile and temporary equipment, such as trackhoes and generators, usually are not provided with secondary containment because it is not practical or considered necessary. These items are designed and maintained to minimize discharges, and they are inspected regularly. Other controls are in place, as discussed in this SPCC Plan, to prevent discharges.

4.2.2 Spill/Discharge Containment

All major plant drainage ditches are equipped with inverted pipe dams designed to permit the passage of water but contain floating material, such as oil. The dams are designed to provide effective oil containment in the event of a discharge. Furthermore, should a discharge reach a drainage ditch, inflatable pipe stoppers are available to fit any of the culverts in these ditches. Discharges can be contained within the plant perimeter fence, if acted upon quickly. Booms and absorbent pads used to cleanup spills on-site also can be used to prevent off-site release when used in the creeks in the unlikely event a spill reaches the creeks.

4.2.2.1 Stationary Tanks and Containers

The 1,000-gal and 500-gal ConVault® tanks located at C-746-U are provided with a UL-listed spill containment system that includes a normally closed valve to release any spilled product from refilling into the primary steel tank. During refilling, all equipment must be grounded properly. These tanks are equipped with standard pumps for refueling vehicles and other equipment. Personnel are required by procedure to use portable containment pans below the filling point each time the vehicle or equipment is refueled.

The C-746-U area, including where the diesel and gasoline tanks are located, drains to a man-made containment lagoon. Runoff of precipitation is accumulated in the lagoon and manually discharged directly to Outfall 019 when it gets near full and KPDES permit conditions can be met. The accumulated water must be examined before discharge to Outfall 019 to ensure that no oil will be discharged.

The two 500-gal tanks located at C-746-A are equipped with standard pumps for refueling vehicles and other equipment. Personnel are required by procedure to use portable containment pans below the filling point each time the vehicle or equipment is refueled. Drainage in this area is to Outfall 001 via a man-made containment basin. Runoff of precipitation is accumulated in the basin and manually discharged directly to Outfall 001 when it gets near full and KPDES permit conditions can be met. The accumulated water must be examined before discharge to ensure that no oil will be discharged.

4.2.2.2 Portable Tanks and 55-Gal Drums

Portable tanks must be filled and emptied in accordance with applicable procedures. Where appropriate and practical, portable containment pans should be placed below the filling point each time the tank is filled or emptied. Similarly, 55-gal drums must be opened and the contents removed in accordance with applicable procedures, and portable containment pans should be placed below filling points, as appropriate.

4.2.2.3 Mobile or Temporary Equipment

Mobile or temporary equipment must be filled in accordance with applicable procedures. Where appropriate and practical, portable containment pans should be placed below the filling point each time the equipment is filled or emptied. For example, large trucks are refueled at the USEC filling station (C-751) in accordance with applicable procedures that require the use of portable containment pans.

4.3 ADDITIONAL REQUIREMENTS FOR BULK STORAGE CONTAINERS

Bulk storage containers (defined in Section 2.1) are identified in Table B-1. Bulk storage containers must meet all other requirements outlined in this SPCC Plan and the following additional requirements.

4.3.1 Container Compatibility

Storage containers must be of a material and construction that are compatible with the material to be stored in them and conditions of storage, such as pressure and temperature.

4.3.2 Quarterly Inspection

The following requirements apply to the inspection of nonmobile tanks.

- Visual inspection of tank and tank site, signage, fire extinguisher and bollards; rusted areas will be cleaned and painted.
- Visual inspection of tank pad and foundation for erosion, corrosion, cracking, settling.
- Visual inspection of grout exterior (top, sides) for abrasion, cracking, holes, excess wear.
- Visual inspection of venting systems, vent caps, level indicators, gauges, pumping systems, including hose and nozzle, fill spouts, and security systems.
- Insert dip stick into leak detection tube and record presence of liquids and hydrocarbon odor.
- Record inspections on an inspection form and file in the office of the tank owner.
- Any findings related to safety and as-designed operations will be repaired promptly using the PRS work release program.
- Repair records will be filed in the office of the tank owner.

- Quarterly inspection to be performed by competent personnel and reviewed by the tank owner and a copy sent to PRS Environmental Compliance department.

4.4 RECORDS

Inspection reports, maintenance records, and other pertinent records must be kept with the responsible persons copies of the SPCC Plan for a minimum of three years.

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5. SPILL/DISCHARGE REPORTING AND RESPONSE

5.1 IMMEDIATE RESPONSE

All spills or other unauthorized discharges of oil or oil products must be reported IMMEDIATELY to the USEC PSS on duty. The PSS is located at the C-300 Building and may be reached by phone at (270) 441-6211, or by dialing 6211 or 333 on the PGDP telephones, or 511 on the PGDP Pax system, or by two-way radio.

5.2 CONTAINMENT AND CLEANUP

DOE has contracted with USEC for response to all large or emergency discharges of oil and oil-related products. USEC provides emergency response personnel, spill cleanup equipment, communication systems, and external agency coordination (see the RCRA Part G permit application, "Contingency Plan"). Small spills are cleaned up quickly by operating personnel. (USEC 2008).

Upon the reporting of a spill/discharge, the PSS serves as, or appoints, the on-scene incident commander (IC). The IC will direct the emergency containment of any spill/discharge that may egress a building or immediate area, or have the possibility of entering a plant drainage ditch. Following containment, the cleanup of spill/discharge materials may be accomplished by using various portable pumps, containers, and other equipment and materials (see Section 5.4). All cleanup wastes generated must be managed properly and disposed of in accordance with applicable regulations and Paducah Site procedures. The IC will follow the USEC SPCCC Plan (USEC 2005) and applicable USEC procedures, as appropriate. The PSS tracks spills because the reportable quantity (RQ) is based on 24-hour period.

5.3 REGULATORY REPORTING

The IC, along with DOE and PRS Environmental Compliance personnel, will determine if a spill/discharge must be reported to the National Response Center (800-424-8802), and/or the Kentucky Environmental Response Team (800-928-2380), and/or other regulatory or emergency agencies.

5.3.1 National Response Center

EPA has established requirements to report spills/discharges to navigable waters or adjoining shorelines. Specifically, EPA requires owners or operators of facilities that discharge oil in quantities that may be harmful to public health or welfare or to the environment to report the spill to the federal government (National Response Center). EPA has determined that discharges of oil in quantities that may be harmful include those that:

- Violate applicable water quality standards;
- Cause a film or "sheen" upon or discoloration of the surface of the water or adjoining shorelines; or
- Cause a sludge or emulsion to be deposited beneath the surface of the water or upon adjoining shorelines.

5.3.2 Kentucky Environmental Response Team

Per regulations set forth by the KDEP, RQs are 25 gal or more of a petroleum product within a 24-hour period and 75 gal or more of diesel fuel in a 24-hour period, or any amount that creates a visible sheen on surface waters. Specific Kentucky regulatory reporting requirements are provided in Appendix D.

5.3.3 EPA Region 4 Administrator

If the Paducah Site were to discharge more than 1,000 gal of oil or oil products in a single discharge, or more than 42 gal in each of two discharges occurring within any 12-month period, a report must be submitted within 60 days to the EPA Region 4 administrator and KDEP. The report must contain the information required by 40 *CFR* §112.4.

5.4 SPILL EQUIPMENT

A USEC emergency response vehicle is maintained at C-200 that contains absorbent pads, pillows, booms, and granular material that may be used to contain and cleanup oil from the ground, drainage ditches, or surface waters. Floating plastic booms may be used to divert or contain the flow of oil or oil products on surface waters. Inflatable pipe stoppers and spill cleanup kits are also stored in this vehicle. Self-contained breathing apparatus cylinders in the emergency response vehicle supply the inflating gas. Spill containment and cleanup materials also are kept at various locations throughout the Paducah Site.

Various portable pumps and containers capable of handling the oil and oil products used at the Paducah Site also are readily available to response personnel. Absorbent materials are stored throughout the plant. USEC also has a King Vac® truck capable of removing up to 3,000 gal of liquid or solid materials. The King Vac® truck may be emptied into temporary storage tanks available on-site and refilled, as necessary.

5.5 COMMUNICATION SYSTEMS

In an emergency situation, effective and rapid communication is essential. The four forms of communication available at the Paducah Site are these:

(1) Telephones—Telephones are located throughout the Paducah Site. An emergency situation can be reported to the PSS by dialing 333 or 6211 on the normal (BellSouth) system or 555 on the interplant Pax system. Emergency calls are answered by or at the C-300 Central Control Facility.

(2) Two-Way Radios—Two-way radios are used by the PSS, Fire Services members, environmental compliance personnel, security guards, and other response personnel to aid in emergency communications. Any radio in the plant can be used to summon emergency assistance. The C-300 Central Control Facility monitors radio communications on all radio channels used at PGDP.

(3) Public Address (PA) System—The PA system is used to communicate emergency instructions to all personnel. The PSS is in charge of all announcements made on the PA system.

(4) Messenger—A messenger may be sent to the C-300 Central Control Facility to notify the PSS of an emergency if it is determined to be a faster means of notification.

6. REFERENCES

USEC (United States Enrichment Corporation) 2005. *Spill Prevention, Control, Countermeasure, and Contingency Plan*, KY/B-249, Rev. 17, Paducah Gaseous Diffusion Plant, August 31.

USEC 2008. Work Authorization No. 25973, "Paducah Fire, Emergency, and PSS," for USEC to provide services to Paducah Remediation Services, LLC.

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APPENDIX A

CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

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CERTIFICATION OF THE APPLICABILITY OF THE SUBSTANTIAL HARM CRITERIA

Facility Name: DOE Paducah Site Facility Address: McCracken County, Kentucky

1. Does the facility transfer oil over water to or from vessels and does the facility have a total oil storage capacity greater than or equal to 42,000 gallons?

Yes _____ No__X__

2. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and does the facility lack secondary containment that is sufficiently large to contain the capacity of the largest aboveground oil storage tank plus sufficient freeboard to allow for precipitation within any aboveground oil storage tank area?

Yes _____ No__X__

3. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula) [1] such that a discharge from the facility could cause injury to fish and wildlife and sensitive environments? For further description of fish and wildlife and sensitive environments, see Appendices I, II, and III to DOC/NOAA's "Guidance for Facility and Vessel Response Plans: Fish and Wildlife and Sensitive Environments" (see Appendix E to this part, section 13, for availability) and the applicable Area Contingency Plan.

Yes _____ No__X__

4. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and is the facility located at a distance (as calculated using the appropriate formula in Attachment C-III to this appendix or a comparable formula)[1] such that a discharge from the facility would shut down a public drinking water intake?[2]

[1] If a comparable formula is used, documentation of the reliability and analytical soundness of the comparable formula must be attached to this form.

[2] For the purposes of 40 *CFR* part 112, public drinking water intakes are analogous to public water systems as described at 40 *CFR* 143.2(c).

Yes _____ No__X__

5. Does the facility have a total oil storage capacity greater than or equal to 1 million gallons and has the facility experienced a reportable oil discharge in an amount greater than or equal to 10,000 gallons within the last 5 years?

Yes _____ No__X__

Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document, and that based on my inquiry of those individuals responsible for obtaining this information, I believe that the submitted information is true, accurate, and complete.

Signature _____

Name (please type or print) _____

Title _____

Date _____

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APPENDIX B

CONTAINER DESCRIPTIONS AND LOCATIONS

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This page is a placeholder for a table and a map which is considered Official Use Only. It can be provided, but must be password protected if provided electronically.

APPENDIX C

FORMS

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Oil-Containing Tanks, Containers, and Equipment

Container Type (tank, drum, etc.)	Responsible Person/Phone #	Size	Contents	Use	Material of Construction	Location (provide map if available)
1.						
2.						
3.						
4.						
5.						

DIRECTIONS: Please complete both top and bottom portions for each item containing 55 gallons or greater of oil or oil byproducts.

Secondary Containment (describe)	Inspections for Leaks (describe)	Integrity/Leak Tests (describe)	Spill Controls/Materials (describe)	Procedure # for Transfer of Contents	Spill History (describe releases and who they were reported to)
1.					
2.					
3.					
4.					
5.					

Attach additional sheet if needed.

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APPENDIX D

REPORTING GUIDANCE

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KENTUCKY'S ENVIRONMENTAL RELEASE REPORTING AND CLEANUP LAW

The 1992 General Assembly passed House Bill 540, which amends Kentucky environmental laws under *KRS* 224.877. Now numbered 224.01-400, the bill clarifies reporting and cleanup requirements for a release or threatened release of a hazardous substance, pollutant or contaminant, petroleum, or petroleum product. This law became effective July 14, 1992. The 1994 General Assembly passed a bill, which was later codified as *KRS* 224.01-405, which requires characterization and corrective action in response to releases of petroleum or petroleum products. Under these provisions, certain actions are required in response to releases or threatened releases of regulated substances. These actions may consist of: immediate notification of a release, a written follow-up report, characterization, cleanup, and other required actions.

What must be reported? Any spill, leak, discharge, dumping, or other "release" of any of the following classifications of substances in excess of a reportable quantity must be reported immediately.

- **Hazardous substances** - Substances designated under the federal Superfund Act (CERCLA) and those extremely hazardous substances designated under Title III of the Superfund Amendments and Reauthorization Act (SARA) are to be reported according to quantities listed in the respective laws and regulations. Also reportable as a hazardous substance is any quantity of nerve or blister agents designated under *KRS* 224.50-130(l)d.

- **Pollutants or contaminants** - A release or threatened release of any element, substance, compound, or mixture into the environment in a quantity that may present an imminent or substantial danger to the public health or welfare is reportable.

- **Petroleum or petroleum products** - Any release including a fuel, oil, or lubricant in excess of 25 gal within a 24-hour period must be reported. The reportable quantity of diesel fuel is 75 gal or more in a 24-hour period. However, any release that causes a visible sheen or that violates any other provision of Section 311 of the Clean Water Act must be reported.

Who must report? Any person possessing or controlling a regulated substance must immediately report a release or threatened release covered by this law. This law affects any person, trust, firm, joint stock company, corporation (including a government corporation), partnership, association, federal agency, state agency, city, commission, county, transporter, or any interstate body. Any release that must be reported to a federal agency must also be reported to the Kentucky Department for Environmental Protection.

How are reports to be made? All reports must be made immediately to the 24-hour Environmental Response telephone number: (502) 564-2380 or (800) 928-2380 (to be used only for emergencies and spill reporting required by law). A written follow-up report may be required by the Cabinet and must be submitted within seven days of the Cabinet's demand. The report must contain information such as:

- The precise location of the release;
- The name, address, and phone number of the person in charge at the time of the release;
- Persons knowledgeable of the release, and a contact person for additional information;
- The concentration and quantity of the release;

- The circumstances and cause of the release;
- Efforts taken to control or mitigate the release;
- Any harmful effects of the release;
- Where the release occurred and the potential for movement away from the site;
- Any present or proposed action at the site to correct the release or its effects; and
- Any other information that may assist in the response at the site.

What are the clean-up requirements? Once a release has occurred, even if it is less than reportable quantity, the responsible person must characterize the full extent of the release and determine its effect on the environment and correct the effect of the release on the environment. For releases that exceed the reportable quantity, the cabinet must approve site characterization and remedial actions. For releases that exceed the reportable quantity, the cabinet must approve site characterization and remedial actions. The cabinet may require submittal of the demonstration of characterization and remediation on releases of less than a reportable quantity.

For questions concerning the Environmental Release Reporting and Cleanup Law, write to the:

Department for Environmental Protection
Release Reporting Information
14 Reilly Road
Frankfort, Kentucky 40601
(502) 564-6716

Source Kentucky Department for Environmental Protection Environmental Permitting Programs, p. 60-61.

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